WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Volume 22, #3 - June 2007

Do your customers know?

Automatic Sprinkler Systems Need Annual Maintenance!

By Janet Sailer, Water Conservation Specialist, Sammamish Plateau Water and Sewer District. Sailer is knowledgeable about outdoor landscaping and irrigation.

Many homeowners install automatic irrigation systems for the convenience and peace of mind they get by knowing their lawn is getting just the right amount of water. They get their timers set and just know they'll save water and keep the landscape green while they are away on vacation or out of town.

However, bliss turns to shock when homeowners install irrigation systems to conserve water, only to find out that their water bills have doubled or tripled since they installed their systems!

Preventing water loss – especially during the dry summer months – increases system capacity. So, if your utility serves customers who rely on automatic sprinkler systems, you may want to give them the tips below.

Signs your sprinkler system could be leaking

- **Broken sprinkler heads.** If a lawnmower or a vandal damages a sprinkler head, you will lose a great deal of water the next time your system runs.
- **Weak output.** You notice you're not getting coverage from sprinkler head to sprinkler head. Fixing a leak will make your system operate more effectively.
- **Brown spots on the lawn.** You may not be getting adequate coverage due to a leak in a sprinkler head or a water line.
- **Lowest sprinkler head runs after the system turns off.** Some low-head drainage is normal after the system has run, but there should not be a continuous stream. You can minimize low-head drainage by installing check valves in your sprinkler heads and lines.
- **Water meter has a continual slow spin.** If you have ruled out all possible leaks inside your home (such as toilet or faucet leaks), a slow spin may mean a leak in your irrigation system.
- **Wet or soggy spots in the lawn.** There may be an underground break in your irrigation line. Sometimes the leak is large enough to cause the turf to "float" on the surface. If you have ruled out surface water drainage issues, check for leaks.

(Continued on Page 4)

Inside This Issue

The Director's Column

by Denise Addotta Clifford

Water use efficiency can help you weather storms, or drought!

Anyone in the Pacific Northwest can identify with the fickle nature of our weather. We have sun and rain on the same day, balmy days and cold nights, back-to-back drought and flooding, and 70-plus degree days in March followed by snow in April. On both sides of the mountains, Washington's weather is never simple.

The western half of our state started the year windy and wild with the promise of lots of snow, which seemed to fly in the face of the warmer El Niño conditions forecasted for the region. While our weather in January wasn't warm, it was definitely wet. Ducks sloshed merrily in local fields and salmon sometimes mistook roads for rivers.

But Western Washington and the Northern Cascades were the only wet blips on our regional weather map. The Pacific Northwest, as a whole, is in danger of reduced water supplies this summer. Parts of Eastern Washington, along with Oregon and Idaho, are reporting up to 20 percent less snow pack than normal.

So how do you plan for such conditions? Climate change, competing demands for water, drought and floods… How can an average water system take it all in and prepare?

In the past, we've covered emergency planning, emergency supplies, and financial planning. Believe it or not, one tool in your weather-response arsenal is our new Water Use Efficiency Rule. Water systems, regardless of size, need to become very good at managing water supply to survive and thrive amid the uncertainties our region throws at us. Preparing for the Water Use Efficiency Rule will help you get there.

Efficiency is more than conservation. It is smart water management. The Legislature intended our new Water Use Efficiency Rule to help all community water systems live by the principle: *Know what you need, know what you use, use only what you need.*

Here are some of the questions you'll need to answer to meet the requirements of the new rule and make the best use of your available supplies, no matter what the weather brings:

- How are my customers using water?
- How is my system as a whole using water?
- How much of the water is lost in the distribution system?
- Where can we tighten the system by replacing old lines and preventing emergency leak repair?
- Where can we invest in upgrades to save both dollars and water?

Over the next year, we will continue developing our Water Use Efficiency Program. This fall, we expect to offer guidance and training to help you comply with the new requirements (see page 8). In the meantime, you can begin to prepare for the new rule – and whatever Mother Nature decides to throw our way – by developing answers to the questions above.

Denise A Clifford

Fall Drinking Water Seminars

"Thinking Ahead: Do It Now!" is the theme for this fall's Drinking Water Seminars. You will receive your registration brochure in mid-September, but we wanted to let you know now so you can save the date on your calendar. Information about the seminars will also be highlighted in the September issue of *Water Tap*. The dates and locations for the 2007 Drinking Water Seminars are:

October 29
Spokane
Mirabeau Park

October 30
Tri-Cities
Red Lion Pasco

November 6
Mt. Vernon
Cotton Tree

November 8
Olympia
Red Lion

Replacing Retiring Water Operators

A perfect storm on the horizon

Reprinted with permission, NYCOM Bulletin

Just as the sword fishermen in Sebastian Junger's "The Perfect Storm" experienced a rare combination of meteorological factors that created the storm of the century, municipalities with aging wastewater and drinking water operators will soon find themselves looking into the eye of the storm. Unlike the 1991 storm that destroyed the *Andrea Gail* off the cost of Nova Scotia, municipal officials will have had considerable warning before experiencing the environmental and fiscal impact of replacing retiring water operators.

The term, "a perfect storm," is used to describe the convergence of numerous factors that result in a catastrophic event. In New York state, the perfect storm brewing in the water field is made up of the age of water treatment operators, the anticipated flood of retirees, the lack of interest in the field, and the lure of private industry. Once these factors converge, local governments will find themselves with wastewater and drinking water systems without qualified individuals to operate them.

The first issue is the aging-out of the workforce. Almost 50 percent of today's water operators will no longer be working in the next 10 years. Long-term municipal operators described the difficulty of recruiting individuals to replace retiring operators. There is a real documentable shortage of operators in the job market. Even if qualified candidates can be found, municipal salaries and benefit packages are not nearly as attractive as what is offered by private industry.

Another issue is that elected officials are not familiar with the amount of technical training that is required to operate a water plan nor are they familiar with the operation of the plant itself. A water plant is likely a municipality's single largest investment and asset costing in the millions of dollars. Elected officials have a responsibility to oversee the plant; operators do the rest.

Another problem is that people are not choosing this field for a career. Why not? Operation of the water system is nearly the most invisible job on earth. We take for granted the availability of water. We don't give a thought about how the water got to us and where it goes when it leaves us. If we don't think about water, why would we think about the people who work to ensure its availability and quality?

Also, plant operations are not attractive to the new crop of job candidates. In 10 years, there will be a nationwide shortage of individuals working in trades such as plumbers, electricians, carpenters and system operators. High school graduates are going to college for four-year degrees, not trade schools.

What would happen if your municipality did not have a certified water operator to run your plant? For one, public health and the environment would be compromised if operators were not in place. Second, the system would violate state regulations and be subject to enforcement actions and fines. Guess who pays the fines? Third, water services would be lost, including any money that is made from selling those services to outside users.

So where does that leave us? There is no single answer to the question. However, the problem can be approached in a variety of ways. New York Rural Water Association made presentations to educate elected officials on the requirements of a certified operator, running the water systems like a business, the competitive market for qualified operators, and the need to pay these individuals for their professionalism and dedication.

The second step was to develop an informational brochure directed at high schools, vocational schools, science colleges, and unemployment offices to encourage individuals to consider a career in the water industry. The next project is a public education and outreach effort at the New York State Fair. This effort will focus on raising the public's awareness regarding what it takes to provide water services.

What can you do? Visit your water plant, support the educational needs of your operators, and place value on not just the physical plant, but also the people who make sure our water is safe. With all parties contributing to this effort, the perfect storm will pass us by; but if we continue to ignore the facts, well… we have had fair warning.

Editor's note: Although this article presents the picture in New York, it's likely the same situation is brewing in Washington.

Congratulations: Mud Bay DWSRF Award

As we reported in February, the U.S. Environmental Protection Agency (EPA) recognized Mud Bay Water System in Thurston County with an award for *Sustainable Public Health Protection*. Mud Bay is one of only 27 water systems across the U.S. to receive such an award from EPA.

The award recognizes work system staff recently completed with a Drinking Water State Revolving Fund loan and a Community Development Block Grant.

Team Mud Bay - EPA Region 10 official, Tom Eaton (center), presented a plaque and congratulatory letter to the Mud Bay Board on March 9. Office of Drinking Water staff attended to congratulate the board members and engineering consultants who led the way.

From funding through design and construction, this was a huge local effort. The system replaced all mains, installed meters, replaced the 100-year-old spring source, installed two pump stations and built a new reservoir. Board members even provided construction inspection – at times requiring pipe replacement by the contractor.

You can better appreciate this achievement if you consider the other challenges the board faced during the course of the improvements, such as earthquake damage, boil-water advisories, a salmon-bearing stream, and a highway crossing.

Board President Cory Eckert shows off Mud Bay's new booster pumps. He holds a section of the old wooden mains that delivered water to the system's customers until recently.

Sprinkler maintenance... *(Continued from Page 1)*

- **Meter or valve boxes continually filled with water.** If you have ruled out surface water drainage issues, check for leaks.
- **Summer water bills higher than normal.** Make sure you are not over-watering your landscape by running the system too long or too often! If your water bills are considerably higher than usual, you may have a leak.

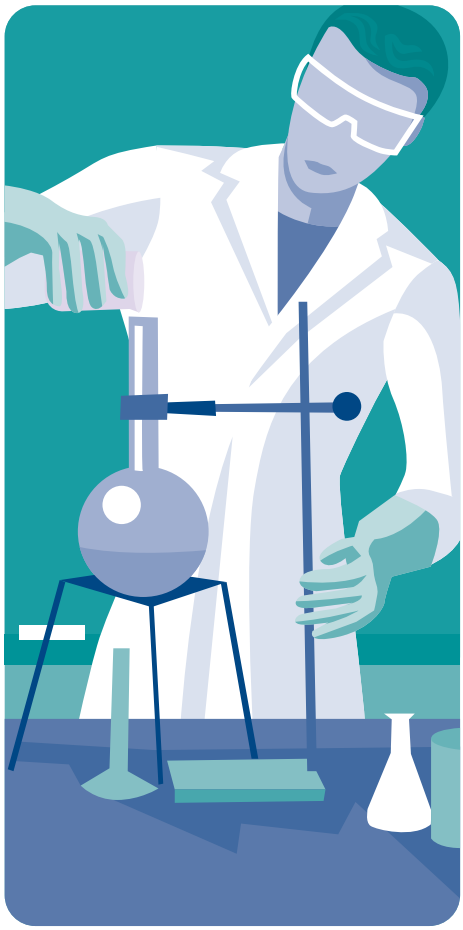
For more information about irrigation systems, visit the Irrigation Association Web site at http://www.irrigation.org/

Howard Stenn, a consultant for Stenn Design, observes the flow rate on an irrigation zone to check for problems and determine how long it should run. "The spray is not getting to many plants, and much of the water is blowing off as mist," he says. "This is a sign of excessive pressure." *(Photo by Janet Sailer)*

Brown spots on the lawn? The foliage from plants in beds adjacent to lawn areas could be blocking the sprinklers.

Using too much water? Homeowners and even some professionals set the timers to water lawns too often, and often not deeply enough to soak the root zone. They also water established shrubs and perennials 2-3 times a week, when they only need irrigation a few times each summer.

Another major problem with automatic systems? They are set in early summer after a hot spell turns everything crispy, and never adjusted as the weather changes. Installing a rain sensor shut-off, or using the "season adjust" or "water budget" feature can help fix this.



Drinking Water Laboratory Data Reporting Rules Update

Several representatives of the lab community provided direct feedback on the Lab Reporting Rule at workshops in Lacey and Moses Lake in March and April.

Office of Drinking Water (ODW) staff took notes as they discussed the intent and the implications of different parts of the proposed rule revisions. Staff are using these comments to guide some changes in the rule language.

We expect to send the first draft of the rule to stakeholders, with the changes highlighted, this summer. At the same time, we will ask for additional comments and suggestions as we continue to prepare this rule for State Board of Health adoption. Look for updates in future issues of *Water Tap*.

Want more lab news?

Participants at our lab data reporting workshops asked for more information on lab topics. *Water Tap* is one way ODW shares information and keeps you abreast of things happening in the future.

Richard Pedlar, Laboratory Certification Coordinator, will contribute news with special focus on our lab readers. "I will keep you informed of things being planned by EPA, Ecology and ODW," says Pedlar. "I will let you know about research underway on new methods that EPA could approve for testing analytes."

Please contact Pedlar if there are issues you want to read about. His contact information is Richard Pedlar, PO Box 47822, Olympia WA 98504-7822, phone (360) 236-3115, e-mail richard.pedlar@doh.wa.gov

The State Public Health Lab no longer accepts Radium-228 samples

The state public health lab no longer accepts drinking water compliance samples for Radium-228 testing.

If you were using the state lab and are required to submit a radionuclide sample for analysis, and one of the required analyses is for Radium-228, you must go to another certified laboratory.

If you are not required to do a Radium-228 analysis, but still need a sample tested for other radionuclides such as Gross Alpha or Uranium, you can still use the public health lab for the analysis.

If you typically send your samples to another lab, ask if they will subcontract for Radium-228 analysis. For a list of certified labs, visit Department of Ecology's Web site at http://www.ecy.wa.gov/programs/eap/labs/documents/DWLabsScopesInternet.pdf (search for Radium-228).

If you have questions, please call Jim Hudson at (360) 236-3131 or your Drinking Water Regional Office:

Eastern Region – Spokane (509) 456-3115

Northwest Region – Kent (253) 395-6750

Southwest Region – Tumwater (360) 236-3030

Drinking Water Week Awards

National Drinking Water Week is an opportunity for utilities and public officials to educate consumers, media and other stakeholders about the value of tap water service and the need to reinvest in water infrastructure.

The event highlights the value of water service in terms of public health protection, fire protection, support for the economy and overall quality of life. It also encourages wise community stewardship of water pipes and facilities to ensure they continue to serve future generations.

This year, the Washington State Department of Health presented five awards during Drinking Water Week, May 6-12, 2007.

Grace Under Pressure

Washington Water Service Company – When a windstorm blew the power out in Clallam, Jefferson, Kitsap, King, Mason, Pierce and Thurston counties last December, Washington Water Service employees made sure all customers had water at least part of each day. The company had an emergency response plan and a communications system to let customers know when they would have water restored. At one point, employees were refueling and rotating portable generators among 135 water systems.

Washington Water Service celebrated at Tacoma's glass museum. Above, from left, are Jerry Petersen, engineering manager; Mary Selecky, secretary of Health; Paul Robischon, SW regional operations manager; Dan Brown, NW regional operations manager; Denise Addotta Clifford, Office of Drinking Water director; and Mike Ireland, president of WWSC.

Most Improved

Town of Eatonville – Facing rapid population growth and water quality problems, Eatonville built a new reservoir, rebuilt its telemetry system, and constructed a state-of-the-art water-treatment plant. The town can now adequately treat water, accommodate rapid growth and provide more reliable water service to its customers.

At the Town of Eatonville, Mayor Tom Smallwood accepts the award from ODW Director Denise A. Clifford (right) and Sen. Marilyn Rasmussen shows her support for the community.

Friend of Drinking Water

Jacqueline "JJ" Bellinger, Okanogan County Public Health District – Bellinger, an environmental health specialist for the county, often works weekends and holidays to help water systems resolve contamination issues or quickly get lab results. Last July, she worked two weekends in a row and sacrificed part of her vacation to help two systems identify contamination sources and take steps to protect public health. Bellinger manages the county drinking water program, inspects water systems and wells for water quality problems, provides technical advice, and runs the local health department's drinking water lab.

JJ Bellinger poses with the ODW Eastern Region staff who nominated her for the award. From left are Tom Justus, JJ, Scott Torpie (regional manager), Mark Steward and Danielle Finley.

Lifetime Achievement

Norm Kramm, City of Vancouver – Kramm is an outstanding leader in the water industry with 30 years of public service. In the 24 years since he became Vancouver's superintendent of water production

Norm Kramm, left, with Mayor Royce Pollard and City Manager Pat McDonnell congratulating him.

and quality in 1983, the size of the utility doubled, population quadrupled, and public works staff tripled. Kramm led Vancouver's water production during the Mount St. Helens eruption. He also dealt with contaminants in a well field, earthquakes, windstorms, major water main breaks, and the largest annexation in state history. Although recently retired, he continues to mentor others in his field.

Above and Beyond

Judy Davis, Homeowner – Davis, a homeowner on the Paxson Platt Water System in Grant County, played a major role in bringing the failing water system back into compliance with state rules. When state officials cited Paxson Platt for too much nitrate in drinking water, water outages, and failing to employ a certified water works operator, Davis was instrumental in rallying the community to petition the City of Moses Lake for direct water service. Moses Lake completed the necessary engineering, and is prepared to begin construction.

For more information, visit the Web site at http://www.doh.wa.gov/ehp/dw/drinking_water_week.htm

New Ways to Submit Your Consumer Confidence Report

Community water systems must prepare a Consumer Confidence Report (CCR) each year and provide copies to customers and the Office of Drinking Water (ODW) by July 1. In the past, you had to mail the CCR to ODW to meet this requirement. Now, we may accept your CCR if you submit it using one of these methods:

- ❏ Mail (U.S. Postal Service, United Parcel Service, FedEx, etc.)
- ❏ Hard copy delivered
- ❏ Facsimile (FAX)
- ❏ E-mail with a word processing file or a PDF attached
- ❏ Download from an Internet Web site, if you give ODW the specific URL link

You are still required to mail to ODW a signed certification form stating that your system provided customers with a copy of the CCR.

If you have questions about the CCR submittal requirement, call your regional office:

Southwest Region
Phone (360) 236-3030
FAX (360) 664-8058

Northwest Region
Phone (253) 395-6750
FAX (253) 395-6760

Eastern Region
Phone (509) 456-3115
FAX (509) 456-2997

Guides and training on the Water Use Efficiency Rule

The Water Use Efficiency Program lead, Mike Dexel, guides a 13-member workgroup consisting of Office of Drinking Water (ODW) staff and external stakeholders. This workgroup is working hard to help water systems get ready for new rule requirements due next year. To ensure the Water Use Efficiency Program has a successful start, the workgroup's highest priority is providing guidance on the rule language and training for water systems and their consultants, and ODW staff.

Guidance

The workgroup is drafting a user-friendly guidebook with help from stakeholders representing various fields of expertise. It will answer common questions about the rule and serve as a training tool. Most importantly, the guidebook will help water systems meet the rule deadlines by addressing their immediate needs.

Some of the guidance topics include the goal-setting process, how to conduct a public forum, what a performance report should look like, and how to collect data to include in performance reports and planning documents. In future years, the workgroup will develop guidance on less time sensitive subjects, such as developing a water-loss control action plan.

Training

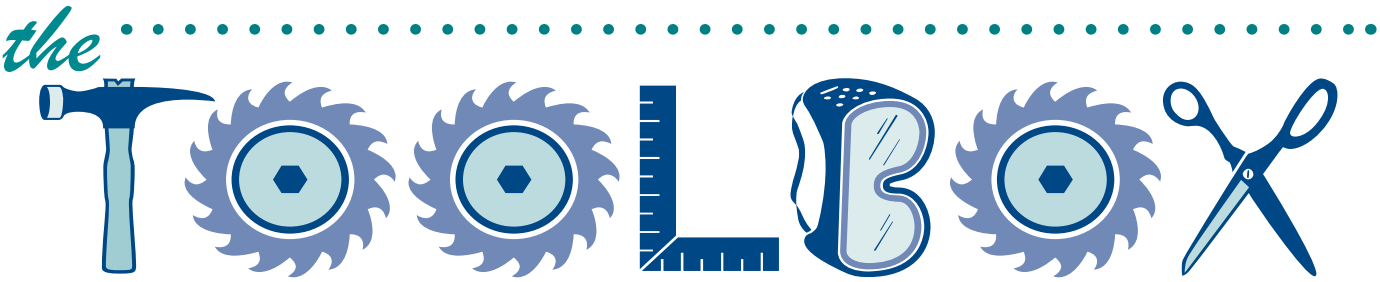
Small water systems – ODW will contract with Evergreen Rural Water of Washington to help provide free training on the rule. The training will occur at 20 locations across the state starting in August and running through the end of the year. It is free for small water systems serving populations of 3,300 or less. For training opportunities in your area, see pages 12-13, call Evergreen Rural Water of Washington at (800) 272-5981 or visit the Web site at http://www.erwow.org/

Systems with more than 1,000 connections – This fall, ODW will hold drinking water seminars at four locations throughout the state. These seminars will offer systems with 1,000 or more connections – and their consultants – their first opportunity to get training on the Water Use Efficiency Rule. See page 2 for the seminar schedule.

For more information

Call Mike Dexel at (360) 236-3154 or e-mail michael.dexel@doh.wa.gov

Visit ODW's Web site for training updates and publications at http://www.doh.wa.gov/ehp/dw/municipal_water/water_use_efficiency_rule.htm



25 Questions for Assessing Your Water System's Financial Health

Here's a new tool to help see how your system is doing financially, and where it needs to improve. You'll get instant feedback. The U.S. Environmental Protection Agency (EPA) Region 1 office in Maine developed this tool. For information, call Will Johnston at (207) 228-8356, e-mail wjohnston@usm.maine.edu or download the tool at http://efc.muskie.usm.maine.edu/Water%20Survey/25questions.htm

Emergency Disinfection of Drinking Water

EPA, other federal agencies and the Red Cross collaborated to develop updated advice on how to disinfect drinking water. Includes four steps to take when water is contaminated. Available in English, French, Spanish, Vietnamese or Arabic at http://epa.gov/safewater/faq/emerg.html

ODW Explores New Way to Send Sample Reminders... E-Mail.

To ensure water systems know when to collect water quality samples, the Office of Drinking Water (ODW) incorporated system notifications, such as the Water Quality Monitoring Report (WQMR), into our Strategic Directions. Besides the WQMR, we mail post cards to remind systems to collect nitrate samples or submit other data to us before they miss a sampling period.

In December 2006, ODW tried using e-mail to streamline these reminders and save resources. Based on current water system information, ODW used e-mail to notify 33 percent (429 of 1,282) of the systems that required a reminder.

"The response was amazing," said Derrick Dennis, Water Quality Unit supervisor at ODW. "Some systems responded within minutes! Some systems sent sample results with their response and others updated their contact information. E-mail is definitely a resource we hope to use more in the future."

We asked a few of those water systems what they thought of ODW using e-mail for notices. They seem to like the idea:

"E-mail works very well. And yes, though we operate a pretty sophisticated scheduling and tracking system, reminders are always welcome."

"I do like communicating via e-mail and very much appreciate reminders like the one you sent. I'd much rather find out a sample might have gone missing before it is overdue."

"Yes...E-mail works well for me…Just don't send an arrest warrant!"

Keep your Water Facility Inventory form updated

So that we can remind you of a testing or reporting requirement, make sure you:

- Update your Water Facility Inventory (WFI) form whenever any system information changes. Simply cross out the old information and add the new information. Be sure to sign and date the form. We will send you a new, updated WFI.
- Report changes in primary and owner contact information (Boxes 6, 7, 9 and 10 on the WFI form). If we have your current phone numbers, e-mail and mailing addresses, we can reach you during emergencies, and for routine daily business. Recently, despite the loss of power during a wind storm, many systems still had e-mail and phone access through their cellular telephones.

A new look for the Backflow Assembly Tester Certification Program

The Certification Services division at Green River Community College will assume Backflow Assembly Tester (BAT) Certification Program responsibilities for all examinations scheduled after July 1, 2007. In addition to its current program activities, Certification Services will:

- Schedule BAT certification and professional growth examinations.
- Evaluate, enroll and confirm applicants for examinations.
- Collect and process examination fees.

Department of Health approved changes in administration of Washington's BAT Certification Program. BAT examination scheduling and application process will now mirror the Water Works Operator Certification Program as closely as possible.

New BAT examination schedule

After July 1, 2007, the BAT examinations will occur on a regular schedule. Certification Services may add dates or locations, based on availability and demand. For BAT exam schedules, visit the Web site or call Certification Services (see contacts below).

BAT Certification Examinations			BAT Professional Growth Examinations		
3rd Monday of each month, *except holidays*			3rd Friday of each month, *except holidays*		
Auburn Station and Spokane			Auburn Station and Spokane		
July 16, 2007	Aug. 20, 2007	Sept. 17, 2007	July 20, 2007	Aug. 17, 2007	Sept. 21, 2007
Oct. 15, 2007	Nov. 19, 2007	Dec. 17, 2007	Oct. 19, 2007	Nov. 16, 2007	Dec. 21, 2007

New BAT examination application process

BAT Certification Examination – You must now complete the new application for BAT certification examination and mail it to Certification Services with the examination fee. Certification Services must receive the application and fee at least 10 calendar days before the exam date. You can get the application form and more information about the BAT Certification Program online or by calling Certification Services (see contacts below).

BAT Professional Growth Examination - A new brochure containing the application for BAT professional growth examination, the examination schedule, and outlining changes to the examination application process was mailed to all eligible backflow assembly testers in May. For more information about the BAT professional growth requirement, visit Certification Services online or call (see contacts below).

Certification Services Contacts

For information, please visit Certification Services online at http://www.wacertservices.org/ or call (800) 562-0858, extension 2. Ask for:

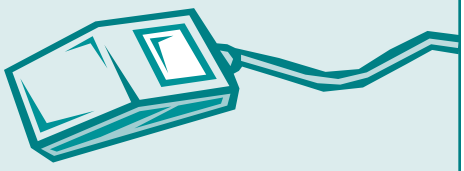
David Kingsley, Backflow Assembly Tester Certification Program manager, for information about BAT certification, BAT professional growth and BAT renewal.

Pamela Basquez, Certification Services support, for information about BAT examination applications and payments, BAT examination references and water works professional growth transcripts.

Peggy Barton, associate director of Certification Services, for information about BAT program administration, water works operator professional growth, course evaluation and CEU assignment, and distance education.

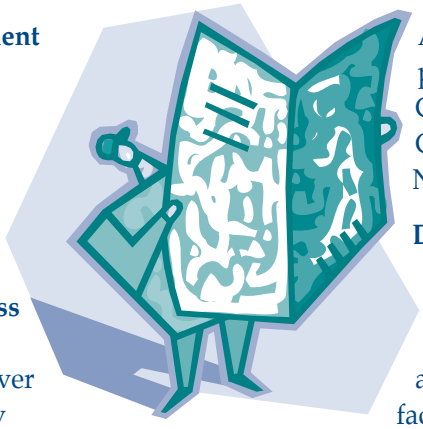
Certification Services launches a new Web site

Washington Certification Services at Green River Community College now has its own Web site. It offers information about the following online at http://www.wacertservices.org/



- The professional growth requirement for certified water works operators
- Water works operator professional growth transcripts
- Backflow assembly tester (BAT) Certification Program information, the BAT professional growth requirement, and BAT renewals
- Course evaluation and continuing education unit assignment procedures for training sponsors
- Useful forms, documents, and links

New & Revised Publications



Point-of-use or point-of-entry treatment strategy (331-358). New! 2 pages of frequently asked questions explain why Washington water systems can't use point-of-use or point-of-entry devices to meet state drinking water standards.

The source monitoring waiver process (331-359). New! 2-page fact sheet describing the source monitoring waiver process used to eliminate unnecessary testing while fully protecting public health.

Water Use Efficiency Rule (331-361). New! 2 pages of questions and answers explain why the Water Use Efficiency Rule was passed, which systems are affected, what they need to do, timelines, costs and where to get assistance.

Covenants for public water supply protection (331-048). Revised. 5-page guidance document on covenants water systems use to ensure no source of contamination is constructed, stored, discarded or applied within the sanitary control area around wells and springs.

Water Works Certification Program Guideline (331-109). Revised. 96-page guidance document on the responsibilities and requirements of water systems, operators and backflow assembly testers.

Backflow prevention assemblies approved for installation in Washington state (2007) (331-137). Revised. Identifies the makes and models of DOH-approved backflow assemblies. It is based on the Approved Backflow Assemblies List published by the University of Southern California (USC) Foundation for Cross-Connection Control and Hydraulic Research. Not available online.

Drinking Water State Revolving Fund 2007 Funding Cycle Application Guidelines (331-196). Revised. 48-page packet of guidelines for water systems that want to apply for low-interest loans to improve their facilities.

Nitrate in drinking water (331-214). Revised. 2-page fact sheet describing nitrate as a drinking water contaminant – where it comes from, health effects, regulations and preventive measures.

Nitrato en el agua potable (331-214s). Revised. 2-page Spanish translation of the Nitrate in drinking water fact sheet.

Drinking Water State Revolving Fund (331-233). Revised. 2-page fact sheet with general information about the Drinking Water State Revolving Fund Program, loan requirements and systems that have received loans.

For copies of Office of Drinking Water publications, call (800) 521-0323 or visit the Web site at http://www4.doh.wa.gov/dw/publications/publications.cfm

Use our Listserv to get e-mail copies of new and revised publications. Sign up at http://listserv.wa.gov/cgi-bin/wa?SUBED1=wa-drinkingwaterpub&A=1

Training and Education Calendar: June - October 2007

Date	Topics	Location	Contact	Phone #	Cost/CEU
June 18-22	BAT Certification Class	Auburn	WETRC	1-800-562-0858	$645/3.7
June 18-22	BAT Certification Class	Spokane	WETRC	1-800-562-0858	$645/3.7
June 21	Asbestos Cement Pipe Handling Procedures	Richland	ERWOW	1-800-272-5981	$50/$100/$110/0.7*
June 23	BAT Certification Exam	Spokane	WETRC	1-800-562-0858	$195/NA
June 23	BAT Certification Exam	Auburn	WETRC	1-800-562-0858	$195/NA
June 26	Water Audits & Leak Detection	Chelan	ERWOW	1-800-272-5981	TBA/0.5
June 27	Sanitary Survey	Bellingham	ERWOW	1-800-272-5981	$50/$95/$105/0.7*
June 27	Water Audits & Leak Detection	Colville	ERWOW	1-800-272-5981	Free/0.5
June 28	Water Audits & Leak Detection	Dayton	ERWOW	1-800-272-5981	Free/0.5
June 29	Sanitary Survey	Olympia	ERWOW	1-800-272-5981	$50/$95/$105/0.7*
July 9-13	BAT Certification Class	Spokane	WETRC	1-800-562-0858	$645/3.7
July 9-13	BAT Certification Class	Auburn	WETRC	1-800-562-0858	$645/3.7
July 10	Automatic Control Valves	Pasco	ERWOW	1-800-272-5981	Free/0.7
July 10	Competent Person	Redmond	ERWOW	1-800-272-5981	$50/$100/$110/0.5*
July 12	Equipment Expo	Satsop	ERWOW	1-800-272-5981	TBA
July 17	Intro to Water Rights	Spanaway	ERWOW	1-800-272-5981	Free/0.6
July 17-19	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	$330/2.1
July 18	Intro to Water Rights	Pt. Angeles	ERWOW	1-800-272-5981	Free/0.6
July 19	Intro to Water Rights	Stevenson	ERWOW	1-800-272-5981	Free/0.6
July 30-Aug 3	BAT Certification Class	Spokane	WETRC	1-800-562-0858	$645/3.7
July 31	Intro to Water Rights	Pasco	ERWOW	1-800-272-5981	Free/0.6
Aug 1	Intro to Water Rights	Liberty Lake	ERWOW	1-800-272-5981	Free/0.6
Aug 2	Intro to Water Rights	Omak	ERWOW	1-800-272-5981	Free/0.6
Aug 3	Electrical Troubleshooting for Water & Wastewater	Bremerton	ERWOW	1-800-272-5981	$50/$95/$105/0.7*
Aug 6-8	Water Works Basics	Spokane	WETRC	1-800-562-0858	$50/$285/2.1*
Aug 6-10	BAT Certification Class	Auburn	WETRC	1-800-562-0858	$645/3.7
Aug 13-15	Water Works Basics	Auburn	WETRC	1-800-562-0858	$50/$285/2.1*
Aug 14-16	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	$330/2.1
Aug 16	Asbestos Cement Pipe Handling Procedures	Wenatchee	ERWOW	1-800-272-5981	$50/$100/$110/0.7*
Aug 20	Process/Instrumentation Verification	Mt. Vernon	ERWOW	1-800-272-5981	$50/$100/$110/0.7*
Aug 21	Competent Person	Yakima	ERWOW	1-800-272-5981	$50/$100/$110/0.5*
Aug 22	Process/Instrumentation Verification	Richland	ERWOW	1-800-272-5981	$50/$100/$110/0.7*
Aug 24	Process/Instrumentation Verification	Spokane	ERWOW	1-800-272-5981	$50/$100/$110/0.7*
Aug 27-31	BAT Certification Class	Spokane	WETRC	1-800-562-0858	$645/3.7
Aug 28	IDSE-Standard Monitoring Evaluation	Olympia	ERWOW	1-800-272-5981	$110/$120/0.7
Aug 30	IDSE-Standard Monitoring Evaluation	Moses Lake	ERWOW	1-800-272-5981	$110/$120/0.7
Sept 4-6	BTO/WTPO OIT and Level 1 Cert Exam Review	Vancouver	WETRC	1-800-562-0858	$50/0.7
Sept 5-7	Water Distribution Manager Exam Review	Moses Lake	ERWOW	1-800-272-5981	$50/$200/$250/2.1*
Sept 5-7	Cross Connection Control Specialist Exam Review	Olympia	ERWOW	1-800-272-5981	$50/$200/$250/2.1*
Sept 7	Incident Command System & NIMS Training	Auburn	WETRC	1-800-562-0858	$135/0.8
Sept 7	Water Distribution Specialist Cert Exam Review	Spokane	WETRC	1-800-562-0858	$50/0.7*

**Operators of Group A small water systems serving 3,300 people or less will be charged a $50 registration fee for these classes.*
† These classes are free for Operators of Group A small Water Systems serving 3,300 people or less.

Training and Education Calendar: June - October 2007

Sept 10-11	Advanced BAT, Troubleshooting & Repair	Auburn	WETRC	1-800-562-0858	$285/1.4
Sept 10-11	ERWOW Fall Conference	Ocean Shores	ERWOW	1-800-272-5981	TBA†
Sept 10-12	Water Distribution Certification Exam Review	Spokane	WETRC	1-800-562-0858	$50/$285/2.1*
Sept 12-14	WTPO Exam Review	Olympia	ERWOW	1-800-272-5981	$50/$200/$250/2.2*
Sept 12-13	Fire Hydrants: Installation, Testing, Op & Repair	Everett	WETRC	1-800-562-0858	$50/$245/1.4*
Sept 14	Basic Electrical	Spanaway	ERWOW	1-800-272-5981	$50/$95/$105/0.8*
Sept 14	BTO/WTPO OIT and Level 1 Cert Exam Review	Spokane	WETRC	1-800-562-0858	$50/0.7*
Sept 14	Water Distribution Specialist Cert Exam Review	Auburn	WETRC	1-800-562-0858	$50/0.7*
Sept 17-19	Pump Operation & Maintenance	Auburn	WETRC	1-800-562-0858	$50/$275/2.1*
Sept 18-20	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	$330/2.1
Sept 18-20	Cross Connection Control Specialist Exam Review	Moses Lake	ERWOW	1-800-272-5981	$50/$200/$250/2.1*
Sept 18-20	Cross Connection Control Basics and Exam Review	Spokane	WETRC	1-800-562-0858	$50/$275/2.1*
Sept 18-20	Water Distribution Manager Exam Review	Olympia	ERWOW	1-800-272-5981	$50/$200/$250/2.1*
Sept 19	Basic Water Works Math	Spanaway	ERWOW	1-800-272-5981	Free/0.5
Sept 24-28	BAT Certification Class	Spokane	WETRC	1-800-562-0858	$645/3.7
Oct 2	Asbestos Cement Pipe Work Practice Procedures	Auburn	WETRC	1-800-562-0858	$155/0.7
Oct 2-3	Adv CCC: Risk Assessment & Hazard Analysis	Spokane	WETRC	1-800-562-0858	$175/1.4
Oct 3	Confined Space Entry	Everett	WETRC	1-800-562-0858	$50/$140/0.7*
Oct 3	Weapons of Mass Destruction Awareness Training	Auburn	WETRC	1-800-562-0858	$75/0.5
Oct 4	Backflow Incident Investigation & Response	Spokane	WETRC	1-800-562-0858	$115/0.7
Oct 4-5	Competent Person Cave in Protection	Everett	WETRC	1-800-562-0858	$50/$210/1.4*
Oct 5	Electrical Troubleshooting for Water & Wastewater	Moses Lake	ERWOW	1-800-272-5981	$50/$95/$105/0.7*
Oct 8-12	BAT Certification Class	Spokane	WETRC	1-800-562-0858	$645/3.7
Oct 8-12	BAT Certification Class	Auburn	WETRC	1-800-562-0858	$645/3.7
Oct 9	Water Quality Emergencies	Everett	ERWOW	1-800-272-5981	$50/$95/$105/0.6*
Oct 9	Automatic Control Valves	Yakima	ERWOW	1-800-272-5981	TBA/0.7
Oct 10	Water Quality Emergencies	Redmond	ERWOW	1-800-272-5981	$50/$95/$105/0.6*
Oct 15	Sampling & Distribution System Monitoring	Tacoma	ERWOW	1-800-272-5981	$50/$100/$110/0.7*
Oct 16	Managing a Public Water System	Yelm	ERWOW	1-800-272-5981	$50/$95/$105/0.7*
Oct 16	Competent Person	Shelton	ERWOW	1-800-272-5981	$50/$100/$110/0.5*

**Operators of Group A small water systems serving 3,300 people or less will be charged a $50 registration fee for these classes.*
† These classes are free for Operators of Group A small Water Systems serving 3,300 people or less.

Our training calendar is updated quarterly; please visit the additional training links for current information.

For information about distance learning activities, call WETRC at (800) 562-0858

Additional Training Links:

AWWA King County Subsection Web site—**http://www.kcawwa.org/**

ERWOW Web site—**http://www.erwow.org/**

WETRC Web site—**http://www.wetrc.org/**

AWWA Pacific Northwest Section Web site—**http://www.pnws-awwa.org/**

EPA Electronic Workshops Web site—**http://www.epa.gov/safewater/dwa/electronic.html** (*No CEU assigned to these courses.*)

For the complete Training Calendar, visit the Drinking Water Homepage and click on Training - http://www.doh.wa.gov/ehp/dw

NOTE: Links to external resources are provided as a public service, and do not imply endorsement by the Washington State Department of Health.

Serving you!

New planners and engineers at regional offices

We have new faces in our Office of Drinking Water regional offices. Here are the new planners and engineers hired over the last year to serve you.

Southwest Regional Office

Linda Kildahl is our newest planner in Tumwater. (We now have two!) She gained broad knowledge in all aspects of the drinking water program in her former position as the region's compliance program manager.

Jozsef Bezovics is an engineer who came to us from Gray & Osborne, where he specialized in water and wastewater treatment plant operations. In addition to being a professional engineer, Bezovics is a certified water treatment plant operator.

Frank Meriwether, formerly an engineer with the Department of Health Office of Food Safety & Shellfish, has joined us. Meriwether has a longstanding interest in drinking water systems. He has experience in international relief efforts that include drinking water projects.

Virpi Salo-Zieman is a new engineer. She recently graduated from the University of Washington with a Master of Science degree. She is from Finland, and has lived in the United States for more than two years.

Northwest Regional Office

Amy Maday will be assisting the regional engineers and helping with coliform issues. She is an engineer-in-training with a bachelor's degree in biology from University of California - San Diego, and a master's degree from San Diego State University.

Erika Peterson joins us from Garrison Engineering, a consulting firm in Burlington, where she worked on small water system design and arsenic treatment systems. She is an engineer-in-training with a passion for international work.

Eastern Regional Office

Christine Collins is our new regional planner. She returns to her hometown, Spokane, from Salt Lake City, where she worked on water conservation and transportation planning. She graduated from Eastern Washington University with a bachelor's degree in public communications and a master's degree in urban and regional planning.

For more information

To find maps showing regional engineers or planners for each county, or to learn more about staff assignments, visit us online at http://www.doh.wa.gov/ehp/dw/Staff_Lists/dwnames.htm

2007 & 2008 Operator Certification Examination Schedule

Dates, times and locations are subject to change due to site availability. Applicants will receive a letter four to six weeks before the exam date.

If you have questions about the examination process, or to order an application packet, call Larry Granish at (800) 525-2536, ext. 1, or e-mail larry.granish@doh.wa.gov

You can also order an application packet online at http://www.doh.wa.gov/ehp/dw/our_main_pages/opcertification.htm

Exam Location & Date	Exam Location & Date	Exam Location & Date	Application Deadlines	Retake Application Deadlines
Bellingham Olympia Port Angeles Seattle Spokane Vancouver Yakima	Mount Vernon Olympia Seattle Wenatchee	Pasco		
October 2, 2007	October 3, 2007	October 4, 2007	July 5, 2007	August 6, 2007
February 5, 2008	February 6, 2008	February 7, 2008	November 7, 2007	December 5, 2007
June 3, 2008	June 4, 2008	June 5, 2008	March 5, 2008	April 4, 2008

Water Works Operators:
Use distance education to meet your professional growth requirement

The Office of Drinking Water (ODW) requires all certified operators to meet their professional growth requirement to remain certified. Most operators earn at least 3.0 continuing education units (CEU) or college credits during each professional-growth reporting period in pre-approved class work directly relevant to drinking water.

Distance education is an alternative for operators who have trouble attending classroom training. It includes:

- Online training (through the Internet)
- Correspondence courses
- Training on CD-ROM
- Videotape training

Training must be pre-approved

Before you enroll in a distance education course, contact Certification Services at Green River Community College to make sure the course is approved. Working under contract with ODW, Certification Services applies Washington's professional growth relevancy criteria, and other ODW criteria, to courses that training sponsors submit for evaluation.

After Certification Services evaluates and approves courses, it assigns CEU operators can use to meet their professional growth requirement. Distance education courses not pre-approved will not be accepted.

Get a list of pre-approved classes

Certification Services will give you a packet of information including the most current list of approved distance education courses, instructions and forms. The following types of courses may apply toward your professional growth requirement if you successfully complete them following the *Distance Education Approval and Examination Procedure:*

- Distance education courses on the approved list that have been evaluated and assigned CEU.
- Distance education that meets the established professional growth relevancy criteria and is offered for college credit through an accredited college or university

Your professional growth transcript

To get CEU, successfully complete a course following the *Distance Education Approval and Examination Procedure.* Then complete the forms listed below and submit them to Certification Services for evaluation:

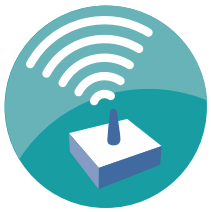
- *Water Works Distance Education Submittal Form*
- *Affidavit of Distance Education Examination Monitoring*

If you have not met your professional growth requirement for the current reporting period, Certification Services will post CEU earned for successful completion of approved distance education to your professional growth transcript. Certified water works operators can view their own professional growth transcript and status online at http://www.wacertservices.org/

For more information

Instructions, procedures, forms and a current list of approved courses is online at http://www.wacertservices.org/ or call Certification Services staff at (253) 288-3369 or (800) 562-0858.

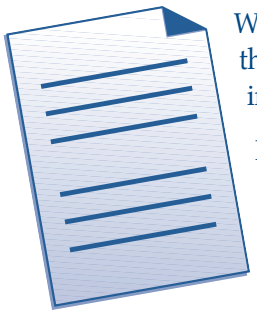




Water System Design Manual Revision

Revisions to the *Water System Design Manual* are underway. This 300-page manual serves as a start-to-finish reference for water system engineers. It covers topics such as construction documents, plan approval and water sources.

Office of Drinking Water staff have changed almost every chapter of the manual. Some chapters have only small editorial changes. But other chapters are extensively revised or reorganized to make them easier for engineers to use. Some of the most substantial revisions relate to the new Municipal Water Law and Water Use Efficiency Rule.



We expect to complete the draft revisions late this summer, and release the final version early in 2008. The last revision was in 2001.

For more information, please call Sam Perry at (253) 395-6755 or e-mail sam.perry@doh.wa.gov

In This Issue

The following people contributed to the production of this issue of *Water Tap*: John Aden, Peggy Barton, Denise Clifford, Derrick Dennis, Mike Dexel, Leslie Gates, Larry Granish, Jim Hudson, Peggy Johnson, Gael Kantz, Jennifer Kropack, Denise Lahmann, Bill Liechty, Donna Lynch, Dick Pedlar, Janet Sailer, Paula Smith, Amy Swecker, Howard Stenn, and Linda Waring.

The Department of Health Office of Drinking Water publishes *Water Tap* quarterly to provide information to water system owners, water works operators and others interested in drinking water.

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